

REMARKS

Claims 2, 3, 4 and 9 are amended by incorporating subject matter from allowed claims 1, 14 and 15. New claim 37 depends from claim 6 and is directed to subject matter from allowed claims 1, 14 and 15. No new matter is presented.

Upon entry of the Amendment, claims 1-4, 6, 9-11, 14-17, 19-25 and 28-37 will be all the claims pending in the application.

I. Response to Obviousness Rejections

A. Claims 2, 16 and 33

Claims 2, 16 and 33 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin (U.S. Patent No. 5,508,091) (hereinafter “Austin ‘091”) in view of Miura (U.S. Patent No. 6,628,064) and further in view of Baba (U.S. Patent No. 6,911,963).

Applicants respectfully traverse the rejection and submit that the cited references do not teach or suggest the present invention, whether taken alone or in combination.

Independent claim 2 recites a self-light emitting display medium, comprising a self-light emitting display having light emission maxima in respective three wavelength regions of three primary colors; and an anti-reflection film applied on a front surface of a display screen of said self-light emitting display and having reflectance minima in at least three wavelength regions containing said respective three wavelength regions of said three primary colors.

Austin ‘091 does not disclose applying an anti-reflection film on a front surface of the display screen of a self-light emitting display device as in the present invention.

With respect to Baba ‘963, this reference discloses various embodiments of a field-sequential (time-divisional) color display unit and display method. Baba ‘963 describes at

column 18, lines 17 to 29, light sources capable of controlling the three-primary colors independently such as LEDs for emitting each of the three-primary colors, fluorescent lamps similar thereto, EL elements and the like. However, Baba '963 also fails to disclose applying the anti-reflection film on a front surface of the display screen of the display device.

Although the newly cited reference of Miura discloses a display (specifically, a self-emissive-type CRT) provided with a surface treatment film composed of an AR film and a conductive film on the surface of a glass panel, there is no motivation to combine this self-emissive-type CRT and a display which is not a self-emissive-type disclosed in Austin '091. Further, Miura cannot be combined with Austin '091 and Baba since, assuming that a light source disclosed in Baba can control RGB of the three primary colors independently, the self-emissive-type display never uses the light source. Thus, one of ordinary skill in the art would not have been motivated to combine the references as suggested by the Examiner with a reasonable expectation of success in achieving the present invention. Thus, for at least this reason, independent claim 2 and the claims dependent thereon are patentable over the cited references.

However, without conceding the merits of the rejection and in order to facilitate and expedite examination, independent claim 2 is amended to include subject matter from claims 1, 14 and 15 which is indicated as allowable. Thus, the anti-reflection film applied on a front surface of a display screen and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors comprises a six or seven layer structure as set forth in amended claim 2. For this additional reason, present claim 2 and the claims dependent thereon are patentable over the cited references.

Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

B. Claims 3, 9, 17, 28, 24 and 36

Claims 3, 9, 17, 28, 34 and 36 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin '091 in view of Baba.

Applicants respectfully traverse the rejection and submit that Austin '091 and Baba do not teach or suggest the present invention for the reasons of record as set forth in the Amendment filed June 30, 2006.

That is, independent claim 3 is directed to a liquid crystal display medium, comprising a liquid crystal display; an anti-reflection film applied on a front surface of a display screen of said liquid crystal display and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors; and one or more three band fluorescent lamps as a backlight source having light emission maxima in said respective three wavelength regions of said three primary colors.

The primary reference, Austin '091, does not disclose applying an anti-reflection film on a front surface of the display screen of a liquid crystal display device (display monitor) as in the present invention. In addition, Austin '091 fails to disclose a light source having emission spectrum maxima at the three primary colors, in particular, the three-band fluorescent lamps, as the Examiner concedes.

Turning to Baba '963, this reference discloses various embodiments of a field-sequential (time-divisional) color display unit and display method. Baba '963 describes at column 18, lines 17 to 29, light sources capable of controlling the three-primary colors independently such as LEDs for emitting each of the three-primary colors, fluorescent lamps similar thereto, EL

elements and the like. As a display unit, the reference describes a liquid crystal display, CRT display, PDP display and the like, and a color filter may be provided on the display surface.

However, Baba '963 also fails to disclose applying the anti-reflection film on a front surface of the display screen of the display device, or the three-band fluorescent lamps. Thus, Baba '963 does not remedy the deficiencies of Austin '091. Moreover, even if these references were combined as suggested by the Examiner, the present invention would not have been achieved. Thus, for at least this reason claim 3 and the claims dependent thereon are patentable over the cited references.

However, without conceding the merits of the rejection and in order to facilitate and expedite examination, independent claim 3 is amended to include subject matter from claims 1, 14 and 15 which is indicated as allowable. Thus, the anti-reflection film applied on a front surface of a display screen of the liquid crystal display and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors comprises a six or seven layer structure as set forth in amended claim 3. For this additional reason, present claim 3 and the claims dependent thereon are patentable over the cited references.

Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

C. Claims 4, 19-20 and 35

Claims 4, 19-20 and 35 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin '091 in view of Chang (U.S. Patent No. 6,867,833).

Applicants respectfully traverse the rejection and submit that Austin '091 and Chang do not teach or suggest the present invention for the reasons of record as set forth in the Amendment filed June 30, 2006.

That is, independent claim 4 is directed to a light reflective display medium comprising a reflective display; and an anti-reflection film applied on a front surface of a display screen of said reflective display and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors.

The primary reference, Austin '091, does not disclose applying an anti-reflection film on a front surface of the display screen as in the present invention.

Turning to Chang '833, similar to Austin '091, Chang '833 is silent about applying an anti-reflection film on a front surface of the display screen as in the present invention. Thus, Austin '091 and Chang '833 do not teach or suggest all elements of claim 4 and, even if combined, the invention of claim 4 would not have been achieved. For at least this reason, claim 4 and the claims dependent thereon are patentable over the cited references.

However, without conceding the merits of the rejection and in order to facilitate and expedite examination, independent claim 4 is amended to include subject matter from claims 1, 14 and 15 which is indicated as allowable. Thus, the anti-reflection film applied on a front surface of a display screen and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors comprises a six or seven layer structure as set forth in amended claim 4. For this additional reason, present claim 4 and the claims dependent thereon are patentable over the cited references.

Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

D. Claims 6 and 21-25

Claims 6 and 21-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Austin '091 in view of Furugori (U.S. Patent No. 6,836,068).

Applicants respectfully traverse the rejection and submit that the cited references do not teach or suggest the presently claimed invention, whether taken alone or in combination.

Independent claim 6 recites an organic EL display device of self-light emitting type, comprising an organic EL display of the self-light emitting type, including a light emitting layer of organic compounds having light emission maxima in respective three wavelength regions of three primary colors; and an anti-reflection film applied on a front surface of a display screen of said organic EL display and having reflectance minima in at least three wavelength regions containing said respective three wavelength regions of said three primary colors.

The Examiner asserts that the combined teachings of Austin '091 and Furugori provides the limitations of independent claim 6, and states that Furugori teaches the use of an AR film of a display surface.

However, Austin '091 merely discloses a liquid crystal display device and fails to disclose an organic EL display device of the self-light emitting type. Further, there is no description of applying an anti-reflection film discussed above on a front surface of a display screen (monitor) of an organic EL display device or even a liquid crystal display device.

Furugori '068 discloses an organic EL device that emits the respective R, G, and B lights and an image display apparatus using the organic EL device.

However, at column 2, lines 21 to 41, referring to Fig. 2 of JP 2000-315582A, Furugori '068 discloses that it is not preferable to provide an anti-reflection layer on the electrode of the

organic EL device itself. Thus, the description of Furugori relied on by the Examiner refers to the prior art, and here, the AR film is provided between an electrode and a light emission layer (Figure 2 of Furugori). This is clearly a different structure from that of the present invention.

Then, at column 2, lines 42 to 63, referring to USP 5,986,401, Furogori '068 discloses that it is not preferable to provide an anti-reflection layer outside the organic EL device. More precisely, the organic EL display apparatus of Furugori '068 preferably does not comprise a transparent electrode such as the transparent electrically-conductive multilayer coating having anti-reflection function taught by Austin '091 or preferably does not have an anti-reflection film applied on the monitor display screen surface of an organic EL device as in the present invention. Instead, a light absorption layer formed of an electrical insulating substance is provided on the monitor display screen surface of an organic EL device in Furugori '068. Thus, Furugori teaches away from the present invention. Accordingly, the Examiner's indication with respect to Furugori is improper.

As previously stated in the Amendment filed on June 30, 2006, there is no motivation for one of ordinary skill in the art to combine Austin '091 and Furugori '068 with a reasonable expectation of success. Also, no one skilled in the art would have arrived at the idea of applying the anti-reflection film disclosed in Austin '091 on a monitor display surface of the organic EL device disclosed in Furugori '068 based on the teachings of these references. Even if they were combined, the present invention would not have been achieved since neither reference teaches or suggests all elements of the present claims. Thus, the present invention is not obvious.

Accordingly, applicants respectfully request withdrawal of the §103 rejection.

II. New Claim 37

New claim 37 depends from claim 6 and is patentable for at least the same reasons as set forth above. Further new claim 37 recites that the antireflection film comprises a specific 6 or 7 layer thin film structure which is not taught or suggested by the cited references. For this additional reason new claim 37 is patentable over the art of record.

III. Allowable Subject Matter

Claims 1, 10-11, 14-15 and 29-32 are allowed. Applicants thank the Examiner for the early indication of allowed claims.

IV. Conclusion

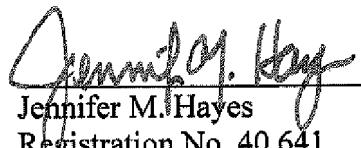
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment under 37 C.F.R. § 1.116
Application No. 10/660,600

Q75429

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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